

We claim:

1. The use of crosslinked nitrogenous compounds which are soluble or dispersible in water and are obtainable by crosslinking of
 - (a) compounds containing at least three NH groups with
 - (b) at least bifunctional crosslinkers which react with NH groups, in detergents and cleaners.
2. The use as claimed in claim 1, wherein compounds (a) are selected from the group consisting of oligo- and polyamines, polyalkylenepolyamines, polyamidoamines, polyamidoamines grafted with (poly)ethyleneimine, and mixtures thereof.
3. The use as claimed in claim 1 or 2, wherein the crosslinkers (b) are selected from the group consisting of the halogen-free crosslinkers
 - (1) polyepoxides
 - (2) ethylene carbonate, propylene carbonate and/or urea,
 - (3) monoethylenically unsaturated carboxylic acids and their esters, amides and anhydrides, at least dibasic carboxylic acids or polycarboxylic acids, and their esters, amides and anhydrides,
 - (4) products of the reaction of polyetherdiamines, alkylenediamines, polyalkylenepolyamines, bifunctional or multifunctional alcohols, alkylene glycols, polyalkylene glycols, functionalized polyesters or polyamides or their mixtures with monoethylenically unsaturated carboxylic acids or their esters, amides or anhydrides, the reaction products having at least two ethylenic double bonds, carboxamide, carboxyl or ester groups as functional groups,
 - (5) products, containing at least two aziridino groups, of the reaction of dicarboxylic esters with ethyleneimine,
 - (6) cumulenes and polyheterocumulenes,

- (7) β -keto esters, β -keto acids and β -keto aldehydes,
(8) functionalized glycidyl ethers,
the halogen-containing crosslinkers
(9) polyhalides
5 (10) glycidyl halides,
(11) chloroformates and chloroacetic acid derivatives,
(12) epichlorohydrin, glycerol chlorohydrin, polyether dichlorohydrin
compounds,
(13) phosgene
10 or mixtures thereof.

4. The use as claimed in any of the preceding claims, wherein compound (a) is
selected from N,N,N',N'-tetraaminopropyl-1,2-ethylenediamine or polyethylene-
imine with a degree of polymerization of from 5 to 50, and crosslinker (b) is a
15 bisglycidyl ether of a polyethylene glycol with a weight average molecular
weight of from 300 to 3000.

5. The use as claimed in any of the preceding claims as soil release agents.

20 6. The use as claimed in any of claims 1 to 4 as enzyme stabilizers.

7. A detergent or cleaner comprising at least one crosslinked nitrogenous
compound as defined in any of claims 1 to 4, and at least one surfactant.

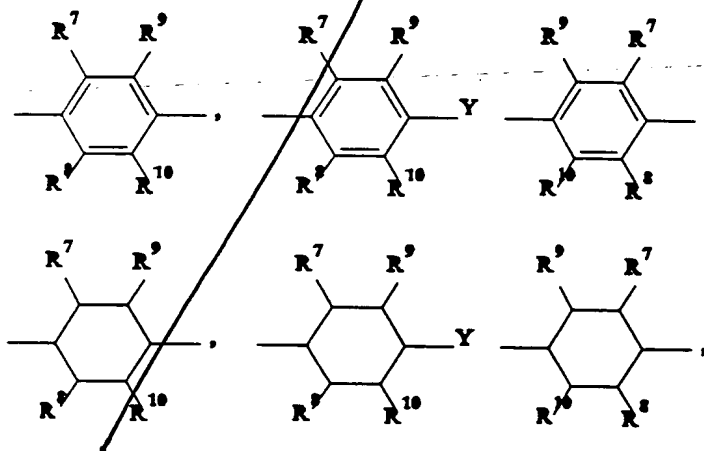
25 8. A detergent or cleaner as claimed in claim 7, additionally comprising at least one
enzyme.

9. A water-soluble crosslinked product obtainable by crosslinking amines of the
formula (II)



where the radicals R^1 are hydrogen atoms or $(R^2R^2)N-(CH_2)_n$ - radicals,
the radicals R^2 are hydrogen atoms or $(R^3R^3)N-(CH_2)_n$ radicals,
the radicals R^3 are hydrogen atoms or $(R^4R^4)N-(CH_2)_n$ - radicals,
the radicals R^4 are hydrogen atoms or $(R^5R^5)N-(CH_2)_n$ - radicals,
5 the radicals R^5 are hydrogen atoms or $(R^6R^6)N-(CH_2)_n$ - radicals,
the radicals R^6 are hydrogen atoms,
n is 2, 3 or 4, and
the radical X is one of the radicals

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$-(CH_2)_p-$, $-(CH_2)_3-NR^{11}-(CH_2)_3-$, $-(CH_2)_1-[O-(CH_2)_k]_m-O-(CH_2)_1-C_{2-20}$ -alkylene,
the radical Y is an oxygen atom, a $CR^7R^9C=O$ or SO_2 radical,

p is an integer from 2-20,

l and k are, independently of one another, an integer from 2-6, m is an integer
from 1-40,

the radicals R^7 , R^8 , R^9 and R^{10} are, independently of one another, hydrogen
atoms or C_{1-6} -alkyl radicals,

and the radical R^{11} is C_{1-20} -alkyl, C_{2-20} -dialkylamino- C_{2-10} -alkyl, C_{1-10} -alkoxy- C_{2-10} -alkyl, C_{2-20} -hydroxyalkyl, C_{3-12} -cycloalkyl, C_{4-20} -cycloalkylalkyl, C_{2-20} -alkenyl, C_{4-30} -dialkylaminoalkenyl, C_{3-30} -alkoxyalkenyl, C_{3-20} -hydroxyalkenyl, C_{5-20} -cycloalkylalkenyl, an aryl or a C_{7-20} -arylalkyl radical which is unsubstituted or substituted one to five times by C_{1-8} -alkyl, C_{2-8} -dialkylamino, C_{1-8} -alkoxy, hydroxyl, C_{3-8} -cycloalkyl and/or C_{4-12} -cycloalkylalkyl, or two radicals R^{11} together form an alkylene chain which may be interrupted by nitrogen or oxygen, such as from ethylene oxide, propylene oxide, butylene oxide and $-CH_2-CH(CH_3)-O-$ or polyisobutylene with 1 to 100 isobutylene units,

with at least one crosslinker (b) as defined in claim 1, 3 or 4.

The use of a detergent or cleaner as claimed in either of claims 7 or 8 for washing textiles.

Sub
B1

Add
B2

Abstract

The invention relates to the use of crosslinked nitrogenous compounds which are soluble or dispersible in water and are obtainable by crosslinking of

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(a) compounds containing at least three NH groups with

(b) at least bifunctional crosslinkers which react with NH groups,

10 in detergents and cleaners, especially soil release agents.

Compounds (a) are preferably selected from the group consisting of oligo- and polyamines, polyalkylenepolyamines, polyamidoamines, polyamidoamines grafted with (poly)ethyleneimine, and mixtures thereof.

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